

TI GENOMIC DNA CAN BE USED WITH CATIONIC METHODS FOR HIGHLY EFFICIENT
TRANSFORMATION OF MAIZE PROTOPLASTS.

AU ANTONELLI N M [Reprint author]; STADLER J

CS METAPONTUM AGROBIOS, I-75010 METAPONTO, ITALY

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AB Efficient delivery of genomic DNA fragments to maize protoplasts was
obtained by new methods using the **polycation** Polybrene or
Lipofectin cationic liposomes. Stable kanamycin-resistant secondary
transformants were recovered after **transfection** with genomic DNA
from a maize cell line that had previously been tagged with the bacterial
gene neomycin phosphotransferase (nptII) in a first-round transformation.
The frequency of secondary transformants with nptII-homologous DNA
sequences was 3% or 6% of all randomly picked microcalli after Polybrene-
or Lipofectin-mediated **transfection**, respectively.
Transformation with genomic DNA by these methods may allow easy transfer of
uncloned genes encoding desirable characteristics to crop species that can
be regenerated from protoplasts.